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THREE NEW SUBSPECIES OF BIRDS FROM HONDURAS

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IN THE COURSE of investigating the distribution of the birds of the Central American republic of Honduras, I have examined and critically studied nearly all the Honduran material now extant, including specimens in the British Museum (Natural History). Among the considerable number of Honduran specimens available in American museums, there are more than 2,000 specimens collected in 1962 and 1963 by Richard and Jean Graber, J. Alan Feduccia, Rose S. Monroe, and myself. As one of the initial results of my study of Honduran material I am here describing three new subspecies.

Family FALCONIDAE

BUTEOGALLUS SUBTILIS RHIZOPHORAE new subspecies

Type.—Adult male; no. 28923, Louisiana State University Museum of Zoology; 4 mi. SW San Lorenzo, Department of Valle, Honduras; 5 October 1962; J. Alan Feduccia; original no. JAF 706.

Characters.—Differs from *B. s. subtilis* (Thayer and Bangs)[1] and *B. s. bangsi* (Swann)[2] in the lack of rufous or buff on the primaries and secondaries of adults, the remiges being wholly black except for the white or grayish white area at the base of the primaries and for faint *gray* mottling on the ventral surface of the inner webs of the proximal secondaries. Differs

[1]*Urubitinga subtilis* Thayer and Bangs, Bull. Mus. Comp. Zool., 46, 1905: 94 (Gorgona Island, sw. Colombia).

[2]*Urubitinga anthracina bangsi* Swann, Synop. Accip., ed. 2, 1922: 98 (San Miguel Island, Bay of Panama).

from *B. s. utilensis* Twomey[3] only in smaller average size. Differs from *B. anthracinus* (Deppe)[4] in much smaller size and in the lack of rufous on the secondaries.

Measurements (in millimeters).—Males (5 specimens): wing (chord), 324-345 (336); tail, 179.5-196.0 (184.7); culmen (chord from cere), 24.6-26.2 (25.7). Females (5 specimens): wing (chord), 336-357 (350); tail, 189.5-200.0 (196.0); culmen (chord from cere), 26.1-27.9 (27.3).

Distribution.—Confined to the vicinity of mangrove swamps on the Pacific coast of El Salvador and Honduras (Chiapas records of *subtilis* are probably referable to this race); specimens from Guanacaste Province in northwestern Costa Rica are intermediate between *rhizophorae* and *bangsi.*

Remarks.—The populations of the genus *Buteogallus* inhabiting the mangroves of the Pacific side of Middle and South America are currently treated as an ecological race (*subtilis*) of the species *anthracinus.* Smaller size has been regarded as the primary distinguishing characteristic of *subtilis.* After observing both *anthracinus* and *subtilis* on the Pacific coast of Honduras in 1962 and 1963 and examining large series representing all described forms of the genus *Buteogallus,* I feel that the relationships in the group are best expressed by treating *subtilis* as a full species. The morphological evidence does not indicate any intergradation between *anthracinus* and *subtilis* despite the fact the two are in contact. In Honduras I have observed *subtilis* foraging several miles from mangroves in areas inhabited by *anthracinus.* However, extensive field work would be required to determine if complete reproductive isolation is indeed a fact.

I am unable to detect any constant geographical variation in 118 specimens (86 adults) of *B. anthracinus* examined in the present study. These specimens were taken throughout the range of *anthracinus* from Texas and Sonora to Venezuela, and on St. Vincent Island, Lesser Antilles. The race *B. a. cancrivorus* (Clark)[5] might conceivably be recognized on the basis of the average greater amount of white or buff basally on the feathers of the nape and upper back. But this character is subject to much age variation, and adults throughout the range of the species may be of either type. All adults exam-

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[3]*Buteogallus anthracinus utilensis* Twomey, Ann. Carnegie Mus., 33, 1956: 387 (Utila I., Honduras).

[4]*Falco anthracinus* W. Deppe, Preis-Verz. Säugeth. Vög. . . . Mexico, 1830: 3 (Veracruz).

[5]*Urubitinga anthracina cancrivora* Clark, Proc. Biol. Soc. Washington, 18, 1905: 63 (Barrouville, St. Vincent, Lesser Antilles).

ined possess at least faint indications of rufous mottling ventrally on the inner webs of the secondaries; this character, however, is of little value in immatures because of the extensive amount of white or buff on the secondaries in that plumage, regardless of geographical derivation. A comparison of young birds was not undertaken during the present work.

Populations of *B. subtilis,* in contrast to *B. anthracinus,* exhibit considerable geographical variation, a fact overlooked by most recent workers. Coloration of the secondaries in Pacific coast populations of *subtilis* varies in a general north-south cline from gray mottling through rufous mottling (similar to that of *anthracinus*) to an extreme rufous condition involving extensive rufous on both webs of most or all remiges. Birds from Guanacaste Province, northwestern Costa Rica, seem to be closest to the newly described form, but many show signs of rufous tint in the mottling on the secondaries and are, therefore, considered intermediate between *B. s. rhizophorae* and *B. s. bangsi.* Specimens from eastern Costa Rica and Panama possess distinct rufous mottling on the secondaries, and are similar in this respect to *B. anthracinus.* This condition might be interpreted as an approach to *anthracinus,* but I believe it to be a matter of clinal variation within *B. subtilis.*

Further evidence of the lack of interbreeding between *B. s. bangsi* and *anthracinus* is indicated by the measurements made by Wetmore (personal communication) of a large series of Panamanian specimens. Despite the great range of variation within each species in Panama, there is no overlap between the two species in wing measurement. In fact, if the population from Utila Island, Honduras, is disregarded for the moment, the only overlap in wing measurement between *B. anthracinus* and any race of *B. subtilis* exists in a few scattered specimens (the smallest wing of an *anthracinus* that I measured was 365 mm, the largest of a *subtilis* was 369 mm). Aldrich (in Aldrich and Bole, 1937, Sci. Publ. Cleveland Mus. Nat. Hist., 7: 44-49) reports large examples of *subtilis* (wing measurements up to 380 mm) in the Guanacaste region of Costa Rica, but I believe examination of specimens of known ecological origin (*i.e.*, mangrove or nonmangrove) and of known morphology (*i.e.*, type of wing mottling) will show these measurements to be based on individuals of *anthracinus,* as well as of *subtilis.* In the Guanacaste region, as in southern Honduras, it seems likely that *anthracinus* would occur in close ecological proximity to *subtilis* and that the earlier identification of all Guanacaste birds as *subtilis* was probably based on locality alone.

Specimens from eastern Panama show an approach to nominate *subtilis* in the appearance of indistinct mottling on the outer webs of the primaries as well as in having the inner (and sometimes outer) webs of the secondaries distinctly rufous. Ecuadorian and Colombian specimens of *subtilis* possess a bright rufous patch in the folded wing, resulting from the extensive rufous in the outer webs of the primaries. The rufous is also very extensive on the secondaries, being present on both webs, and is visible dorsally as well as ventrally.

The race *utilensis* from Utila Island, Honduras, on the Caribbean side, constitutes a puzzling situation. In every respect except size it is a duplicate of the newly described *rhizophorae* from the Pacific slope; it is primarily a mangrove inhabitant (although ranging throughout the island, of which only an area three miles in diameter is devoid of mangroves). The size (wing measurements of a series of six males ranged from 346.0 to 383.0, mean 367.5; two females measured 365.0 and 381.5) is intermediate between *anthracinus* and other races of *subtilis*. But I do not think these facts necessarily indicate intergradation, hence conspecificity, between *subtilis* and *anthracinus*. The habitat preference and the mottling of the secondaries point toward a relationship between the Utila birds and *B. subtilis* and I therefore consider *utilensis* a race of that species.

Two other forms of the genus may enter into the nomenclatorial picture, depending upon one's taxonomic philosophy. The Cuban *B. gundlachii* (Cabanis)[6] is certainly closely related to the *subtilis* group; the small size and mangrove habitat preference indicate such a relationship. However, for the present, I am considering *gundlachii* a distinct species on the basis of its brown plumage and large white patch in the primaries. Should it be considered conspecific with *subtilis*, *gundlachii* would replace *subtilis* as the name of the species.

B. aequinoctialis (Gmelin)[7] also may be related to the *subtilis* group. It could be considered the rufous extreme, this color being present even on the contour feathers, but the structural characteristics of this bird (cf. Friedmann, 1950, Bull. U. S. Natl. Mus., 50, pt. xi: 396) are sufficiently distinct to justify maintaining it as a full species.

On the basis of the foregoing considerations, the forms of the genus *Buteogallus* would stand as follows:

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[6] *Hypomorphnus Gundlachii* Cabinis, Jour. f. Orn., 2, 1855 (1854): lxxx (Cuba).
[7] [*Falco*] *aequinoctialis* Gmelin, Syst. Nat., 1, pt. 1, 1788: 265 (Cayenne).

Buteogallus anthracinus: Resident from southern Arizona and southern Texas south through Mexico and Central America to northern Colombia and northern Venezuela; Trinidad; St. Vincent, Lesser Antilles.

Buteogallus subtilis utilensis: Confined to Utila Island, in the Bay Islands group, Honduras.

Buteogallus subtilis rhizophorae: Resident in the mangroves of the Pacific coast of El Salvador and Honduras (probably also Chiapas, Mexico); intergrading with *B. s. bangsi* in northwestern Costa Rica.

Buteogallus subtilis bangsi: Resident in the mangroves of the Pacific coast of Costa Rica and Panama (including the Pearl Islands), intergrading with *B. s. rhizophorae* in northwestern Costa Rica and with *B. s. subtilis* in eastern Panama.

Buteogallus subtilis subtilis: Resident in the mangroves of the Pacific coastal islands (and probably also the adjacent mainland) of western Colombia (Gorgona Island) and Ecuador (Puna Island).

Buteogallus gundlachii: Resident in the mangrove swamps of Cuba and the Isle of Pines.

Buteogallus aequinoctialis: Resident in the swampy forests of coastal South America from eastern Venezuela (Orinoco delta) to eastern Brazil (south to Paraná).

Specimens examined.—Ten (5 males and 5 females) from El Salvador (Puerto del Triunfo and Barra de Santiago) and Honduas (4 mi. SW San Lorenzo).

Family TROGLODYTIDAE

UROPSILA LEUCOGASTRA HAWKINSI new subspecies

Type.—Adult male; no. 134231, Carnegie Museum; Coyoles, Department of Yoro, Honduras; 29 June 1950; Arthur C. Twomey and Roland W. Hawkins.

Characters.—Differs from all other races of *Uropsila leucogastra* except

U. l. brachyura (Lawrence)[8] in possessing distinctly barred under tail coverts and rectrices. Differs from *brachyura* in being a much darker and grayer brown above; in a few specimens crown even darker, contrasting slightly with the back. Darker above than any race except *U. l. musica* (Nelson),[9] which is a much more rufous bird. No specimen examined of any race other than *hawkinsi* exhibits a contrasting crown and back.

Measurements (in millimeters).—Males (7 specimens): wing (chord), 50.0-55.4 (51.2); tail, 28.0-30.9 (29.2); tarsus, 17.7-19.9 (18.7), culmen (chord from nostril), 8.8-10.0 (9.5). Females (3 specimens): wing (chord), 48.2-48.7 (48.5); tail, 28.9 (frayed in two specimens); tarsus, 17.2-18.4 (17.9); culmen (chord from nostril), 9.0-9.3 (9.2).

Specimens examined.—Ten (7 males and 3 females), all from the type locality.

Family Icteridae

Agelaius phoeniceus brevirostris new subspecies

Type.—Adult male; no. 30249, Louisiana State University Museum of Zoology; 4 miles north of Río Lindo, Department of Cortés, Honduras; 29 November 1962; Burt L. Monroe, Jr.; original no. BLM 3393.

Characters.—Differs from *A. p. richmondi* Nelson[10] in having a shorter bill (especially noticeable in the male, in which there is no overlap in measurements between *brevirostris* and *richmondi*) and, in the female, in averaging more yellowish and in being less distinctly streaked in the breast region. Differs from other races in the same manner as does *richmondi*, thus being decidedly smaller than either *A. p. grinnelli* Howell[11] or *A. p. costaricensis* van Rossem,[12] the two other geographically adjacent races.

Measurements (in millimeters).—Males (9 specimens): wing (chord), 108.6-112.9 (110.3); tail, 72.8-82.3 (77.0); tarsus, 26.4-31.1 (28.8);

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[8]*Troglodytes brachyurus* Lawrence, Ann. New York Acad. Sci., 4, 1887: 67 (Tekanto, Yucatán).

[9]*Hemiura leucogastra musica* Nelson, Proc. Biol. Soc. Washington, 16, 1903: 159 (Teapa, Tabasco).

[10]*Agelaius phoeniceus richmondi* Nelson, Auk, 14, 1897: 58 (Tlalcotalpam, Vera Cruz, Mexico).

[11]*Agelaius phoeniceus grinnelli* Howell, Auk, 34, 1917: 196 (San Sebastian, El Salvador).

[12]*Agelaius phoeniceus costaricensis* van Rossem, Condor, 32, 1930: 162 (Bebedéro, Guanacaste, Costa Rica).

culmen (chord from nostril), 15.6-16.3 (16.0). Females (8 specimens): wing (chord), 82.1-94.5 (88.2); tail, 65.5-73.1 (68.5); tarsus, 24.5-26.9 (25.5); culmen (chord from nostril), 13.5-14.4 (13.9).

Distribution.—Caribbean slope of Honduras (breeding in marshes around Lake Yojoa, Department of Cortés, and along the Río Aguán near Coyoles, Department of Yoro) and southeastern Nicaragua (Río San Juan near San Carlos).

Remarks.—The bill length is the only mensural character by which the new race differs from *richmondi*, but the difference is rather striking, especially in the male. The bills of a series of ten males and four females of *richmondi* from Tabasco, Quintana Roo, and British Honduras were measured, with the following results: males, 16.8-18.8 (17.7); females, 14.1-15.0 (14.6).

Specimens examined.—Seventeen (9 males and 8 females) from Honduras (Coyoles; Lake Yojoa; Agua Azul; 1 mi. W Jaral; 4 mi. N Río Lindo) and Nicaragua (Río San Juan near San Carlos).

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